

CLAIMS

1. Cosmetic composition adapted for a topical application on the skin comprising, in a medium compatible with the skin:

- at least one tensioning agent, the said tensioning agent being present in a content ranging from 0.01% to 20% relative to the total weight of the composition and
- at least one non-elastomeric, water-insoluble film-forming linear block ethylenic polymer, the said polymer being present in a content ranging from 0.01% to 20% relative to the total weight of the composition.

2. Cosmetic composition according to Claim 1, the said composition being an anti-wrinkle composition.

3. Cosmetic composition according to Claim 1 or 2, in which the tensioning agent is an agent that produces, at a concentration of 7% in water, a shrinkage of isolated *stratum corneum*, measured using an extensometer, of more than 1% and preferably of more than 1.5% at 30°C under a relative humidity of 40%.

4. Cosmetic composition according to any one of Claims 1 to 3, in which the tensioning agent is present in the composition in a content ranging from 1% to 10% relative to the total weight of the composition.

5. Cosmetic composition according to any one of the preceding claims, in which the tensioning agent is chosen from synthetic polymers, polymers of natural origin, mixed silicates, wax microparticles and colloidal particles of mineral fillers, and mixtures thereof.

6. Cosmetic composition according to Claim 5, in which the synthetic polymers are chosen from polyurethane polymers and copolymers, acrylic polymers and copolymers, sulfonated isophthalic acid polymers,

grafted silicone polymers, water-soluble or water-dispersible polymers comprising water-soluble or water-dispersible units and units with an LCST, and mixtures thereof.

5 7. Cosmetic composition according to Claim 5, in which the polymers of natural origin are chosen from plant proteins and plant protein hydrolysates, polysaccharides of plant origin optionally in the form of microgels, and latices of plant origin, and mixtures
10 thereof.

 8. Cosmetic composition according to any one of Claims 1 to 7, in which the ethylenic polymer is present in a content ranging from 1% to 10% relative to the total weight of the composition.

15 9. Cosmetic composition according to any one of the preceding claims, in which the said block ethylenic polymer comprises at least one first block and at least one second block that are mutually incompatible and that have different glass transition
20 temperatures (Tg), the said first and second blocks being connected together via an intermediate segment comprising at least one constituent monomer of the first block and at least one constituent monomer of the second block, the said polymer having a polydispersity
25 index I of greater than 2.

 10. Cosmetic composition according to Claim 9, in which the polymer has a polydispersity index of greater than or equal to 2.5 and preferably greater than or equal to 2.8.

30 11. Cosmetic composition according to Claim 10, in which the polymer has a polydispersity index ranging from 2.8 to 6.

 12. Cosmetic composition according to any one of the preceding claims, in which the polymer has a
35 weight-average mass (Mw) of less than or equal to

300 000.

13. Cosmetic composition according to any one of the preceding claims, in which the polymer has a weight-average mass (Mw) ranging from 35 000 to 200 000 and better still from 45 000 to 150 000.

14. Cosmetic composition according to any one of the preceding claims, in which the polymer has a number-average mass (Mn) of less than or equal to 70 000.

15. Cosmetic composition according to any one of the preceding claims, in which the polymer has a number-average mass (Mn) ranging from 10 000 to 60 000 and better still from 12 000 to 50 000.

16. Cosmetic composition according to any one of Claims 9 to 11, in which the difference in temperature between the glass transition temperatures (Tg) of the first and second blocks is greater than 20°C, preferably greater than 30°C and better still greater than 40°C.

17. Cosmetic composition according to any one of Claims 9 to 11 and 16, in which the first block is chosen from:

- a) a block with a Tg of greater than or equal to 40°C,
- b) a block with a Tg of less than or equal to 20°C,
- c) a block with a Tg of between 20 and 40°C, and the second block being chosen from a category a), b) or c) different from the first block.

18. Cosmetic composition according to Claim 17, in which the block with a Tg of greater than or equal to 40°C has a Tg ranging from 40°C to 150°C.

19. Cosmetic composition according to Claim 17 or 18, in which the block with a Tg of greater than or equal to 40°C is a homopolymer or a copolymer.

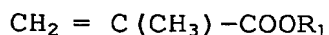
20. Cosmetic composition according to Claim 19, in which the block with a Tg of greater than or

equal to 40°C, when it is a homopolymer, is derived from monomers which are such that the homopolymers prepared from these monomers have glass transition temperatures of greater than or equal to 40°C.

5 21. Cosmetic composition according to Claim 19, in which the block with a Tg of greater than or equal to 40°C, when it is a copolymer, is totally or partially derived from one or more monomers, the nature and concentration of which are chosen such that the Tg
10 of the resulting copolymer is greater than or equal to 40°C.

 22. Cosmetic composition according to Claim 20 or 21, in which the monomers whose homopolymers have glass transition temperatures of greater than or equal
15 to 40°C are chosen from the following monomers:

- methacrylates of formula

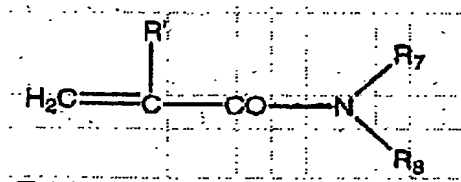


in which R₁ represents a linear or branched unsubstituted alkyl group containing from 1 to 4 carbon
20 atoms, such as a methyl, ethyl, propyl or isobutyl group or R₁ represents a C₄ to C₁₂ cycloalkyl group,

- acrylates of formula $\text{CH}_2 = \text{CH} - \text{COOR}_2$

in which R₂ represents a C₄ to C₁₂ cycloalkyl group such as isobornyl acrylate, or a tert-butyl group,

25 - (meth)acrylamides of formula:



in which R₇ and R₈, which may be identical or different, each represent a hydrogen atom or a linear or branched C₁ to C₁₂ alkyl group such as an n-butyl, t-butyl,
30 isopropyl, isohexyl, isooctyl or isononyl group; or R₇ represents H and R₈ represents a 1,1-dimethyl-3-oxobutyl group, and R' denotes H or methyl;

- and mixtures thereof.

23. Cosmetic composition according to Claim 22, in which the monomers whose homopolymers have glass transition temperatures of greater than or equal to 40°C are chosen from methyl methacrylate, isobutyl (meth)acrylate, isobornyl (meth)acrylate, and mixtures thereof.

24. Cosmetic composition according to Claim 17, in which the block with a Tg of less than or equal to 20°C is a homopolymer or a copolymer.

25. Cosmetic composition according to Claim 24, in which the block with a Tg of less than or equal to 20°C, when it is a homopolymer, is derived from monomers which are such that the homopolymers prepared from these monomers have glass transition temperatures of less than or equal to 20°C.

26. Cosmetic composition according to Claim 24, in which the block with a Tg of less than or equal to 20°C, when it is a copolymer, is totally or partially derived from one or more monomers, the nature and concentration of which are chosen such that the Tg of the resulting copolymer is less than or equal to 20°C.

27. Cosmetic composition according to Claim 24 or 25, in which the monomers whose homopolymers have glass transition temperatures of less than or equal to 20°C are chosen from the following monomers:

- acrylates of formula $\text{CH}_2 = \text{CHCOOR}_3$,

R_3 representing a linear or branched C_1 to C_{12} alkyl group, with the exception of the tert-butyl group, in which one or more hetero atoms chosen from O, N and S is (are) optionally intercalated, the said alkyl group also possibly being optionally substituted with one or more substituents chosen from hydroxyl groups and halogen atoms (Cl, Br, I and F), or R_3 represents an

(alkyl group C₁-C₁₂)-O-POE (POE denoting polyoxyethylene with repetition of the oxyethylene group from 5 to 30 times), such as a methoxy-POE group, or R₃ represents a polyoxyethylene group comprising from 5 to 30 ethylene oxide units;

- methacrylates of formula CH₂ = C(CH₃)-COOR₄, R₄ representing a linear or branched C₆ to C₁₂ alkyl group, in which one or more hetero atoms chosen from O, N and S is (are) optionally intercalated, the said alkyl group also possibly being optionally substituted with one or more substituents chosen from hydroxyl groups and halogen atoms (Cl, Br, I or F);
- vinyl esters of formula R₅-CO-O-CH = CH₂ in which R₅ represents a linear or branched C₄ to C₁₂ alkyl group;
- C₄ to C₁₂ alkyl vinyl ethers;
- N-(C₄ to C₁₂-alkyl) acrylamides, such as N-octylacrylamide;
- and mixtures thereof.

28. Cosmetic composition according to Claim 27, in which the monomers whose homopolymers have glass transition temperatures of less than or equal to 20°C are chosen from alkyl acrylates in which the alkyl chain contains from 1 to 10 carbon atoms, with the exception of the tert-butyl group.

29. Cosmetic composition according to Claim 17, in which the block with a Tg of between 20 and 40°C is a homopolymer or a copolymer.

30. Cosmetic composition according to Claim 29, in which the block with a Tg of between 20 and 40°C, when it is a homopolymer, is derived from monomers (or main monomers) which are such that the homopolymers prepared from these monomers have glass transition temperatures of between 20 and 40°C.

31. Cosmetic composition according to Claim

29, in which the block with a Tg of between 20 and 40°C, when it is a copolymer, is totally or partially derived from one or more monomers (or main monomers), the nature and concentration of which are chosen such that the Tg of the resulting copolymer is between 20 and 40°C.

32. Cosmetic composition according to Claim 29, 30 or 31, in which the monomers whose homopolymer has a glass transition temperature of between 20 and 40°C are chosen from n-butyl methacrylate, cyclodecyl acrylate, neopentyl acrylate and isodecylacrylamide, and mixtures thereof.

33. Cosmetic composition according to Claim 17, in which the first block and/or the second block comprises at least one additional monomer.

34. Cosmetic composition according to Claim 33, in which the additional monomer is chosen from hydrophilic monomers and ethylenically unsaturated monomers comprising one or more silicon atoms, and mixtures thereof.

35. Cosmetic composition according to Claim 34, in which the hydrophilic monomer is chosen from:

- ethylenically unsaturated monomers comprising at least one carboxylic or sulfonic acid function;
 - ethylenically unsaturated monomers comprising at least one hydroxyl function;
 - ethylenically unsaturated monomers comprising at least one tertiary amine function;
 - methacrylates of formula $\text{CH}_2 = \text{C}(\text{CH}_3) - \text{COOR}_6$
- in which R_6 represents a linear or branched alkyl group containing from 1 to 4 carbon atoms, the said alkyl group being substituted with one or more substituents chosen from hydroxyl groups and halogen atoms (Cl, Br, I or F);
- methacrylates of formula $\text{CH}_2 = \text{C}(\text{CH}_3) - \text{COOR}_9$,

R_9 representing a linear or branched C_6 to C_{12} alkyl group in which one or more hetero atoms chosen from O, N and S is (are) optionally intercalated, the said alkyl group being substituted with one or more substituents chosen from hydroxyl groups and halogen atoms (Cl, Br, I or F);

- acrylates of formula $CH_2 = CHCOOR_{10}$,

R_{10} representing a linear or branched C_1 to C_{12} alkyl group substituted with one or more substituents chosen from hydroxyl groups and halogen atoms (Cl, Br, I or F), such as 2-hydroxypropyl acrylate and 2-hydroxyethyl acrylate, or R_{10} represents a (C_1 to C_{12} alkyl)-O-POE (POE denoting polyoxyethylene with repetition of the oxyethylene unit 5 to 30 times), for example methoxy-POE, or R_{10} represents a polyoxyethylenated group comprising from 5 to 30 ethylene oxide units.

36. Cosmetic composition according to Claim 17, in which the said block ethylenic polymer comprises a first block with a T_g of greater than or equal to $40^\circ C$ and a second block with a T_g of less than or equal to $20^\circ C$.

37. Cosmetic composition according to Claim 36, in which the first block with a T_g of greater than or equal to $40^\circ C$ is a copolymer derived from monomers which are such that the homopolymer prepared from these monomers has a glass transition temperature of greater than or equal to $40^\circ C$.

38. Cosmetic composition according to Claims 36 and 37, in which the second block with a T_g of less than or equal to $20^\circ C$ is a homopolymer derived from monomers which are such that the homopolymer prepared from these monomers has a glass transition temperature of less than or equal to $20^\circ C$.

39. Cosmetic composition according to any one of Claims 36 to 38, in which the proportion of the

block with a Tg of greater than or equal to 40°C ranges from 20% to 90%, better still from 30% to 80% and even better still from 50% to 70% by weight of the polymer.

40. Cosmetic composition according to any
5 one of Claims 36 to 39, in which the proportion of the block with a Tg of less than or equal to 20°C ranges from 5% to 75%, preferably from 15% to 50% and better still from 25% to 45% by weight of the polymer.

41. Cosmetic composition according to any
10 one of Claims 36 to 40, in which the polymer comprises:
- a first block with a Tg of greater than or equal to 40°C, for example with a Tg ranging from 70 to 110°C, which is a (methyl methacrylate/acrylic acid) copolymer,
15 - a second block with a Tg of less than or equal to 20°C, for example ranging from 0 to 20°C, which is a methyl acrylate homopolymer, and
- an intermediate block that is a (methyl methacrylate/acrylic acid/methyl acrylate) copolymer.

20 42. Cosmetic composition according to any one of Claims 36 to 40, in which the polymer comprises:
- a first block with a Tg of greater than or equal to 40°C, for example ranging from 70 to 100°C, which is a (methyl methacrylate/acrylic acid/trifluoroethyl meth-
25 acrylate) copolymer,
- a second block with a Tg of less than or equal to 20°C, for example ranging from 0 to 20°C, which is a methyl acrylate homopolymer, and
- an intermediate block that is a (methyl methacrylate/acrylic acid/methyl acrylate/trifluoroethyl meth-
30 acrylate) random copolymer.

43. Cosmetic composition according to any one of Claims 36 to 40, in which the polymer comprises:
- a first block with a Tg of greater than or equal to
35 40°C, for example ranging from 85 to 115°C, which is a

an (isobornyl acrylate/isobutyl methacrylate) copolymer,

- a second block with a Tg of less than or equal to 20°C, for example ranging from -85 to -55°C, which is a 2-ethylhexyl acrylate homopolymer, and
- an intermediate block that is an (isobornyl acrylate/isobutyl methacrylate/2-ethylhexyl acrylate) random copolymer.

44. Cosmetic composition according to any one of Claims 36 to 40, in which the polymer comprises:

- a first block with a Tg of greater than or equal to 40°C, for example ranging from 85 to 115°C, which is an (isobornyl acrylate/methyl methacrylate) copolymer,
- a second block with a Tg of less than or equal to 20°C, for example ranging from -85 to -55°C, which is a 2-ethylhexyl acrylate homopolymer, and
- an intermediate block that is an (isobornyl acrylate/methyl methacrylate/2-ethylhexyl acrylate) random copolymer.

45. Cosmetic composition according to any one of Claims 36 to 40, in which the polymer comprises:

- a first block with a Tg of greater than or equal to 40°C, for example ranging from 95 to 125°C, which is an (isobornyl acrylate/isobornyl methacrylate) copolymer,
- a second block with a Tg of less than or equal to 20°C, for example ranging from -85 to -55°C, which is a 2-ethylhexyl acrylate homopolymer, and
- an intermediate block that is an (isobornyl acrylate/isobornyl methacrylate/2-ethylhexyl acrylate) random copolymer.

46. Cosmetic composition according to any one of Claims 36 to 40, in which the polymer comprises:

- a first block with a Tg of greater than or equal to 40°C, for example ranging from 85 to 115°C, which is an (isobornyl methacrylate/isobutyl methacrylate) copoly-

mer,

- a second block with a Tg of less than or equal to 20°C, for example ranging from -35 to -5°C, which is an isobutyl acrylate homopolymer, and
- 5 - an intermediate block that is an (isobornyl methacrylate/isobutyl methacrylate/isobutyl acrylate) random copolymer.

47. Cosmetic composition according to any one of Claims 36 to 40, in which the polymer comprises:

- 10 - a first block with a Tg of greater than or equal to 40°C, for example ranging from 95 to 125°C, which is an (isobornyl acrylate/isobornyl methacrylate) copolymer,
- a second block with a Tg of less than or equal to 20°C, for example ranging from -35 to -5°C, which is an
- 15 isobutyl acrylate homopolymer, and
- an intermediate block that is an (isobornyl acrylate/isobornyl methacrylate/isobutyl acrylate) random copolymer.

48. Cosmetic composition according to any one of Claims 36 to 40, in which the polymer comprises:

- 20 - a first block with a Tg of greater than or equal to 40°C, for example ranging from 60 to 90°C, which is an (isobornyl acrylate/isobutyl methacrylate) copolymer,
- a second block with a Tg of less than or equal to
- 25 20°C, for example ranging from -35 to -5°C, which is an isobutyl acrylate homopolymer, and
- an intermediate block that is an (isobornyl acrylate/isobutyl methacrylate/isobutyl acrylate) random copolymer.

49. Cosmetic composition according to any one of Claims 36 to 40, in which:

- the ethylenic polymer comprises a first block or poly(isobornyl acrylate/methyl methacrylate) block with a Tg of 100°C, a second poly(2-ethylhexyl acrylate)
- 35 block with a Tg of -70°C and an intermediate block that

is an (isobornyl acrylate/methyl methacrylate/2-ethylhexyl acrylate) random polymer; and
- the tensioning agent is an aqueous dispersion of colloidal silica.

5 50. Cosmetic composition according to any one of Claims 36 to 40, in which:
- the ethylenic polymer comprises a first block or poly(isobornyl acrylate/isobornyl methacrylate) block with a Tg of 110°C, a second poly(2-ethylhexyl
10 acrylate) block with a Tg of -70°C and an intermediate block that is an (isobornyl acrylate/isobornyl methacrylate/2-ethylhexyl acrylate) random polymer;
- the tensioning agent is an aqueous dispersion of colloidal silica.

15 51. Cosmetic composition according to any one of the preceding claims, in which the said composition comprises a fatty phase.

 52. Cosmetic composition according to Claim 51, in which the said block ethylenic polymer is
20 present in the fatty phase.

 53. Cosmetic composition according to any one of the preceding claims, in which the said composition comprises an aqueous phase.

 54. Cosmetic composition according to any
25 one of the preceding claims, which is in the form of an emulsion.

 55. Use of an ethylenic polymer as defined according to any one of claims 1 to 48, to improve the remanence of the tensioning effect afforded by the
30 tensioning agent as defined according to any one of Claims 3 to 7.

 56. Use of an ethylenic polymer as defined according to any one of Claims 1 to 48, in a cosmetic composition comprising an aqueous dispersion of mineral
35 colloidal particles, in particular of silica, to

prevent bleaching of the skin.

57. Cosmetic process for treating wrinkled skin intended to reduce the wrinkles and/or the small wrinkles of the skin, comprising a step consisting in
5 applying to the said skin a composition as defined according to any one of Claims 1 to 54.

58. Cosmetic process according to Claim 57, in which the composition is applied to the contour of the eyes.

10 59. Process according to Claim 57 or 58, in which the composition is a care composition or a makeup composition.